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Fig. 1

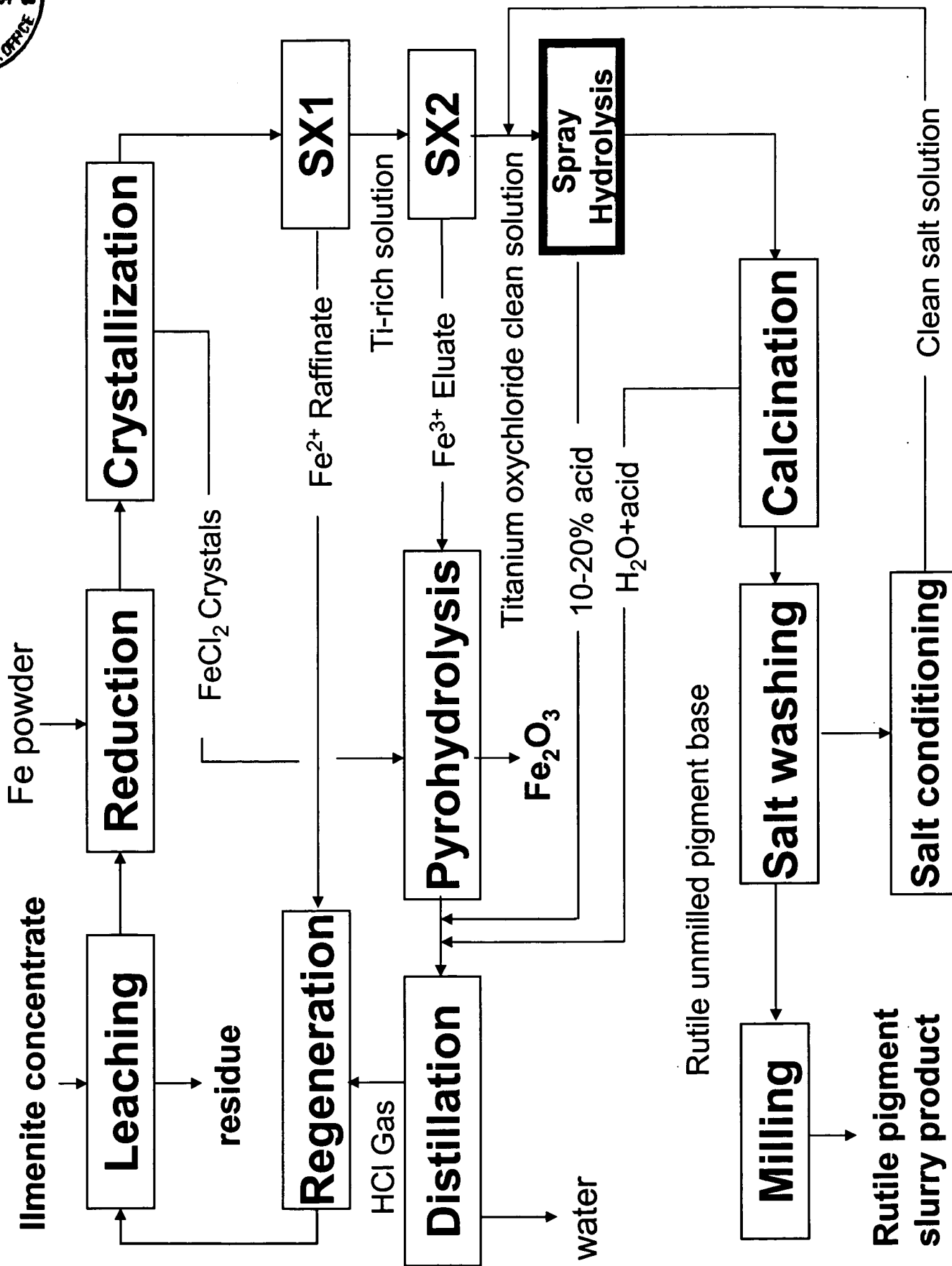


Fig. 2 Aqueous titanium chloride or oxychloride solution

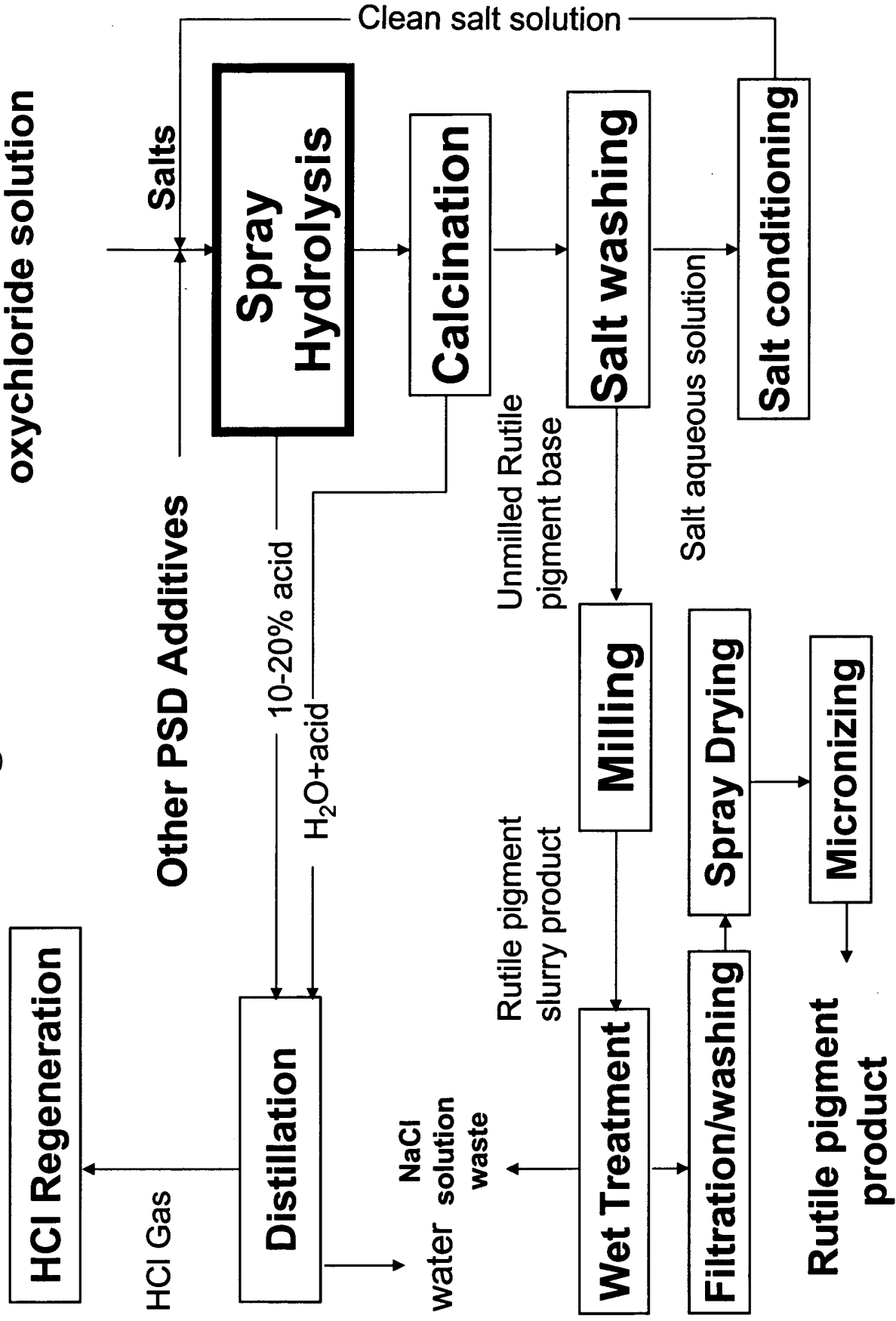


Fig. 3

KCl-LiCl-NaCl

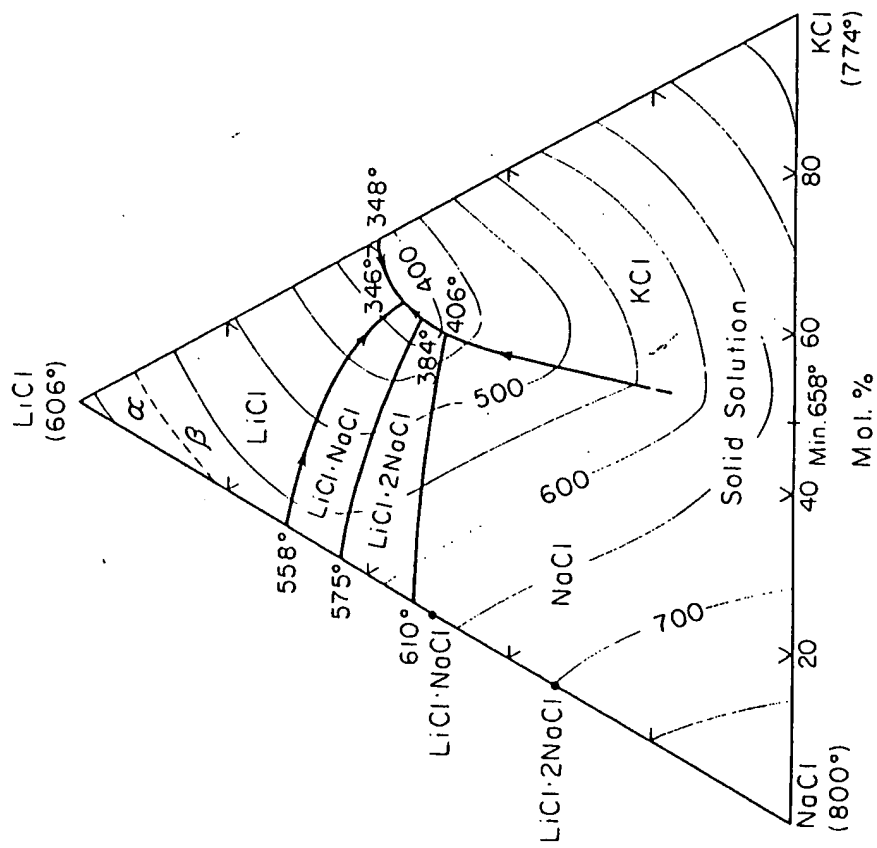


Fig. 4

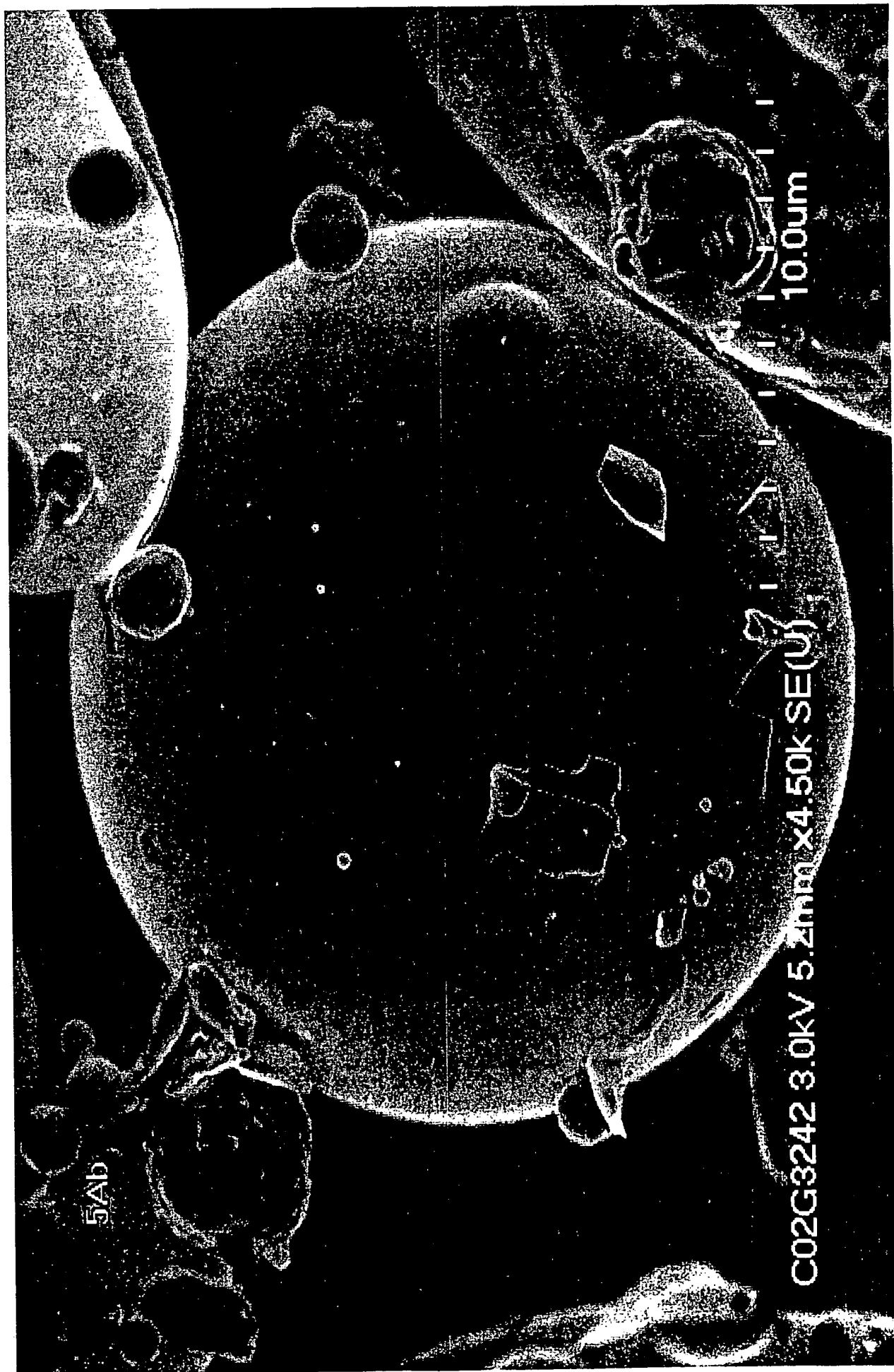


Fig. 5

**XRD scan of NaCl salted Ti-O-Cl-H amorphous
intermediate.**

No TiO₂ crystal forms were detected by the XRD.

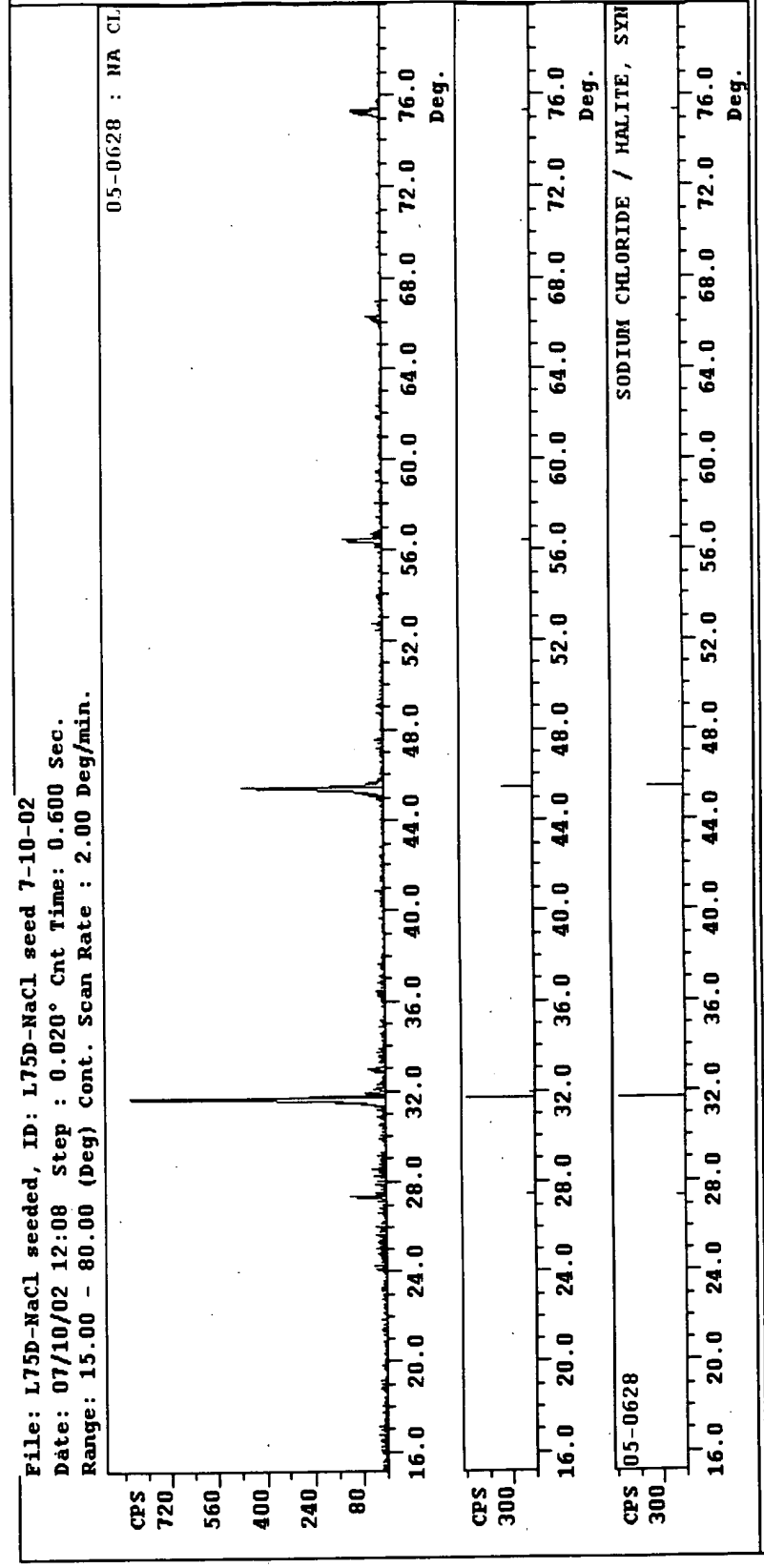


Fig. 6A

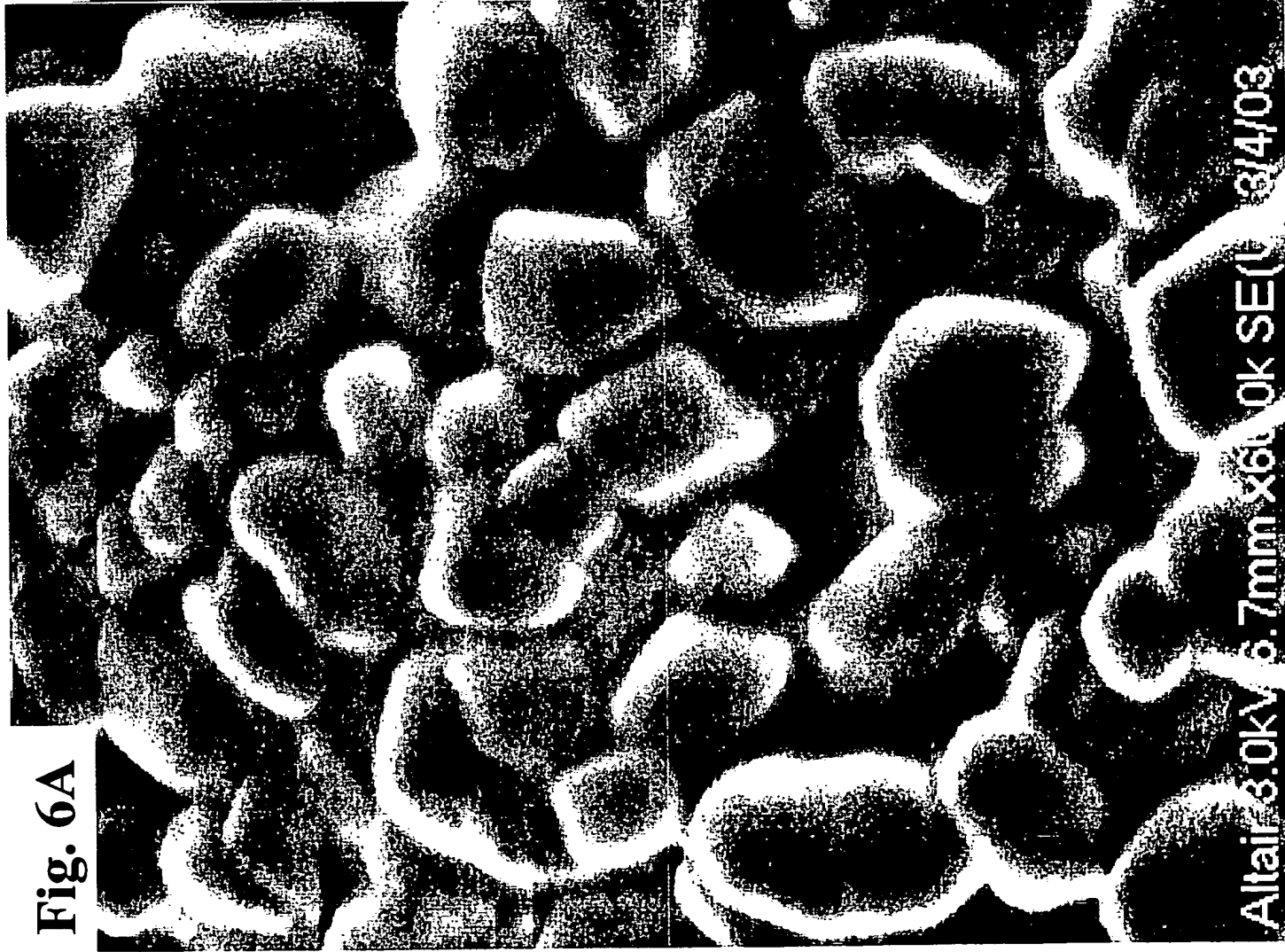


Fig. 6B

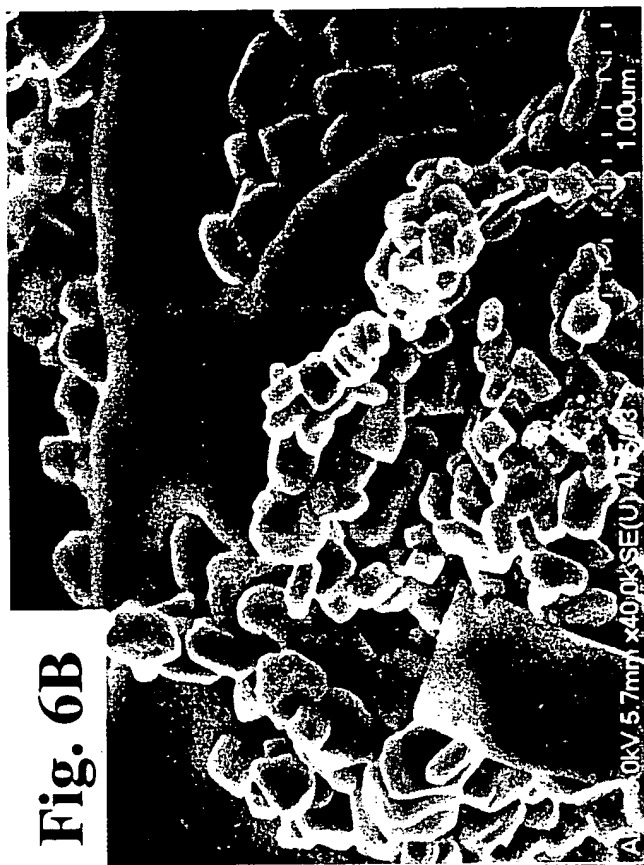


Fig. 7
AMORPHOUS INTERMEDIATE → RUTILE LOW
TEMPERATURE CONVERSION PATHWAY.

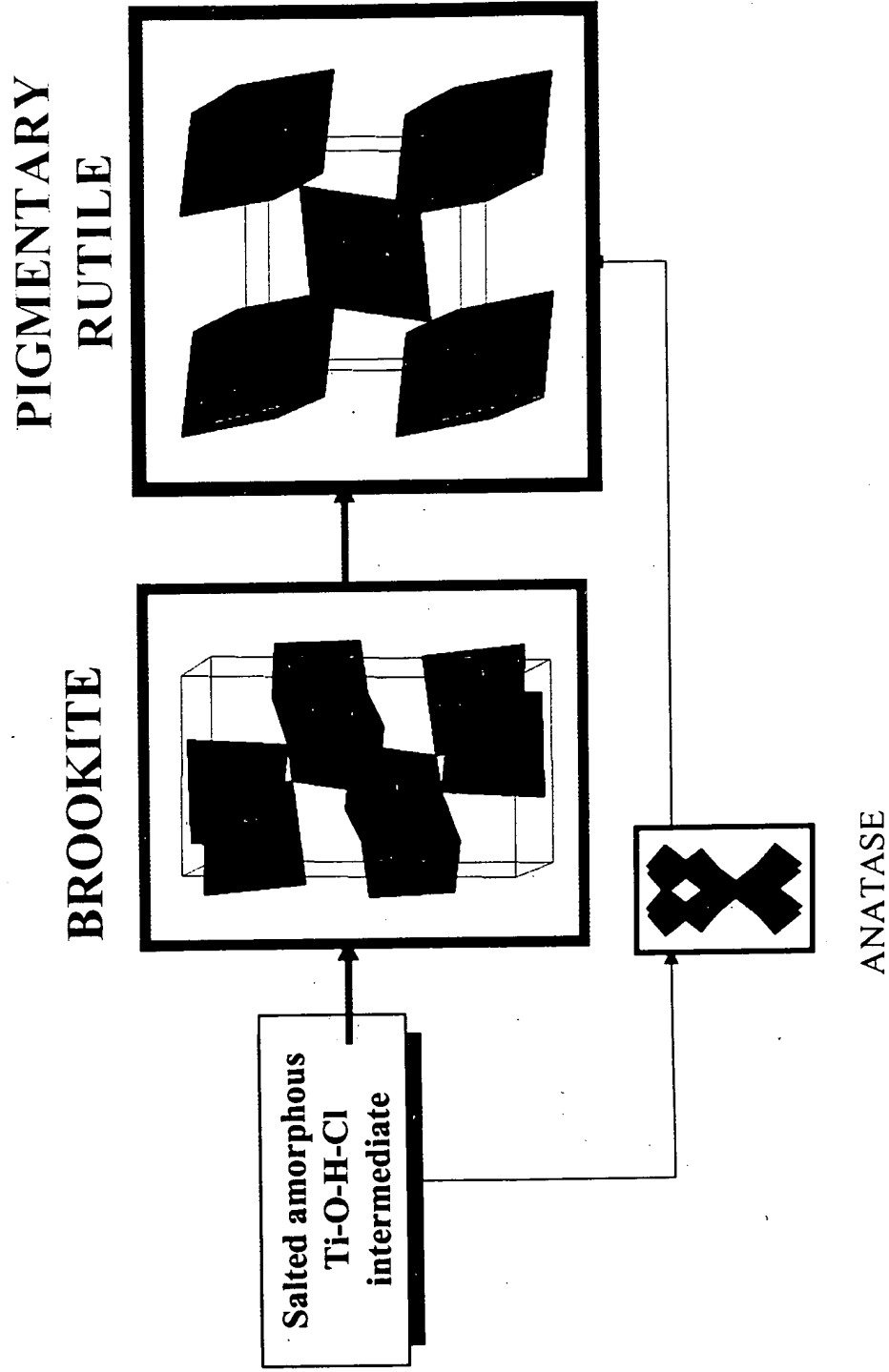


Fig. 8

CALCINATION PROCESS AT 650°C.

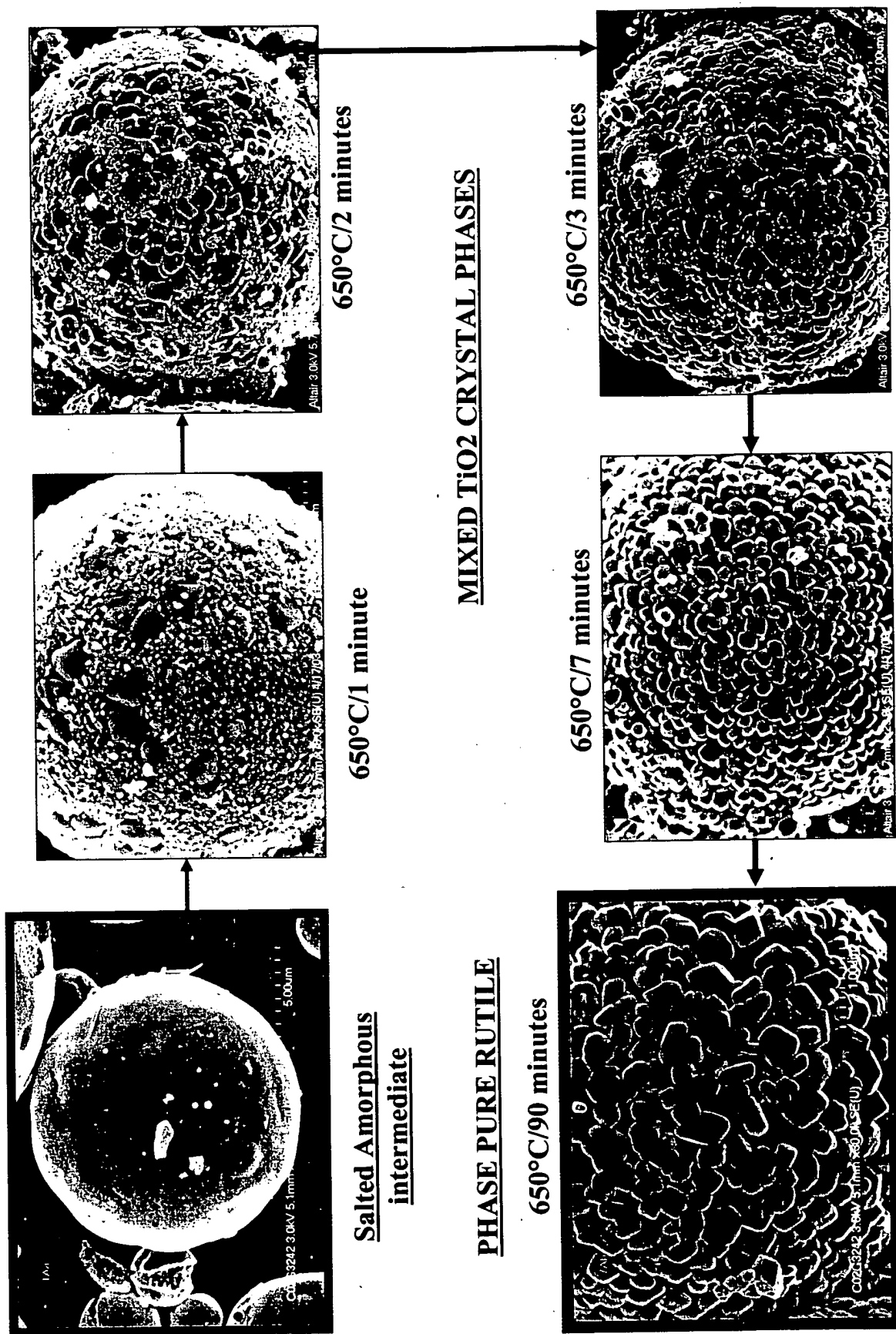


Fig. 9A

1. Brookite/Anatase disappearance-detail

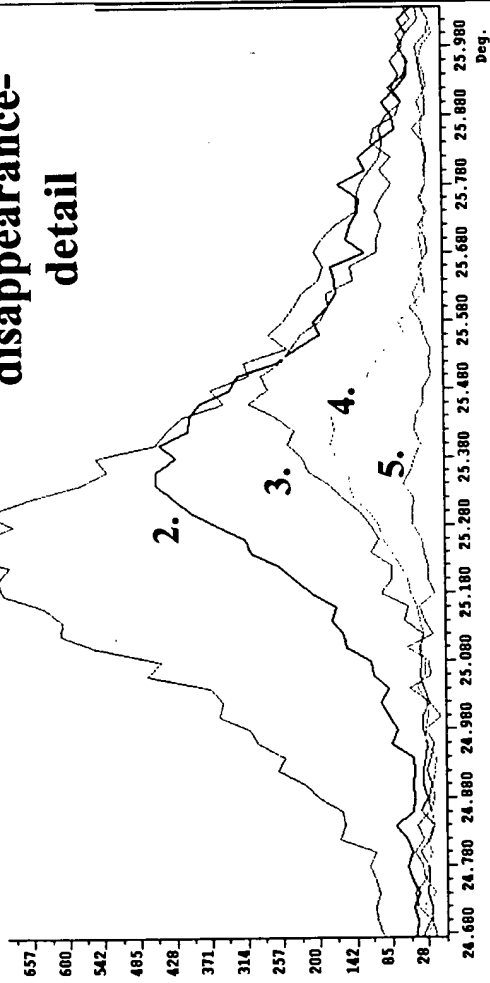


Fig. 9B

5. Rutile growth-detail

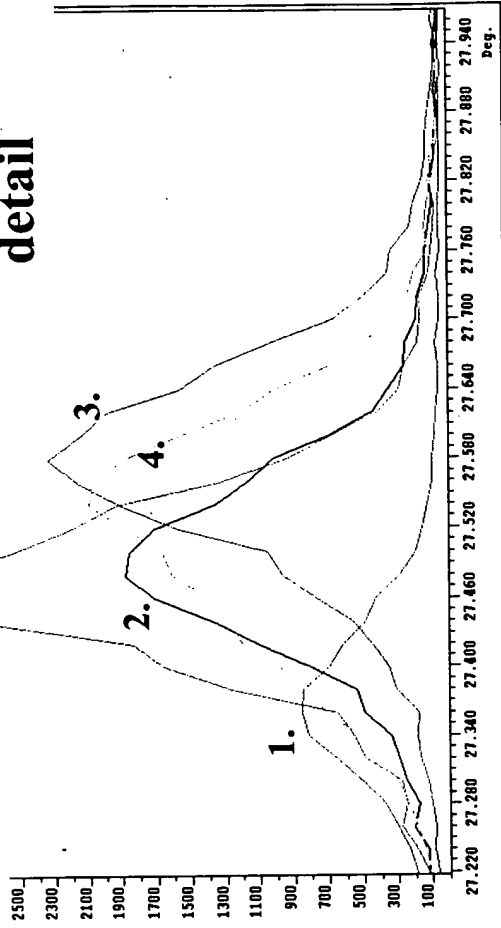


Fig. 9

1. Calcination 650°C/1min
2. Calcination 650°C/2min
3. Calcination 650°C/3min
4. Calcination 650°C/7min
5. Calcination 650°C/90min

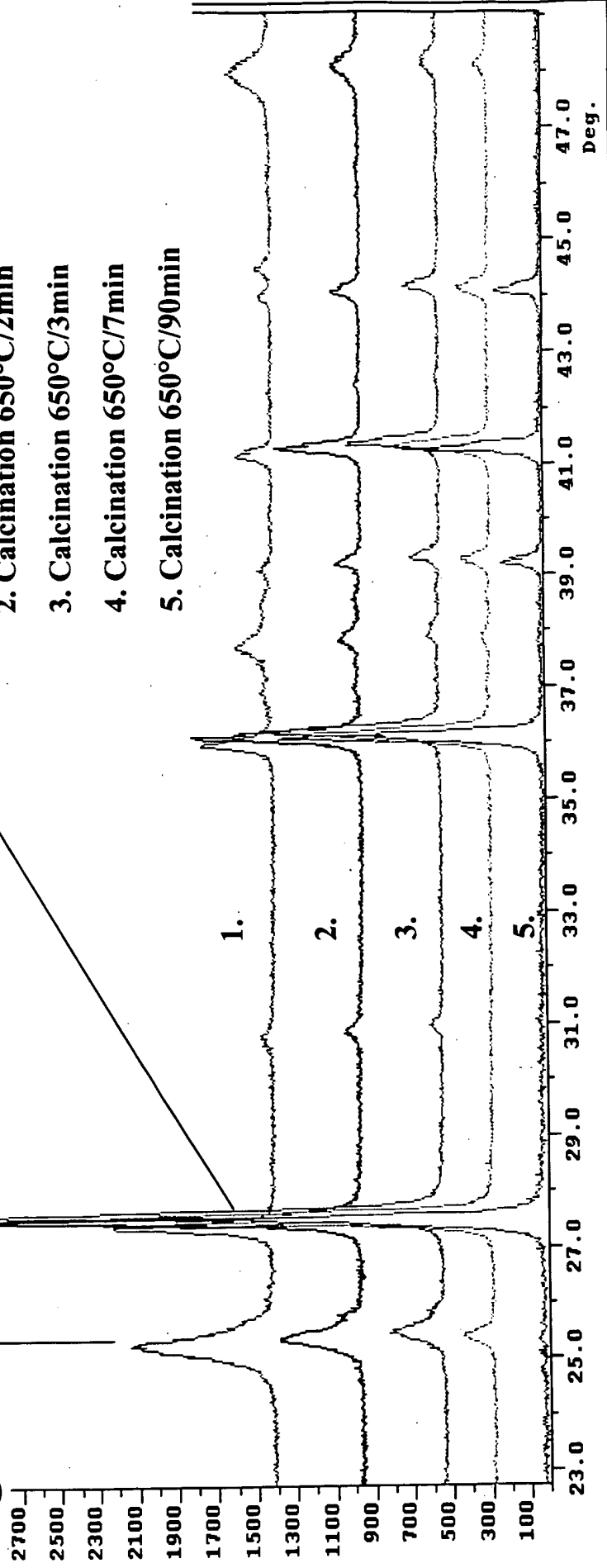


Fig. 10

One minute calcination at 625°C

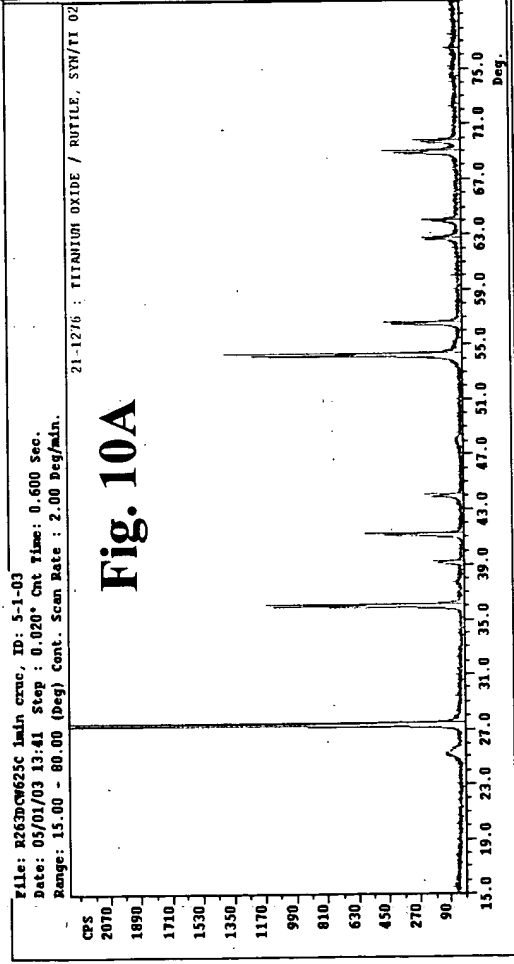


Fig. 10A XRD pattern of 625°C/1 minute flash calcined material-only traces of anatase phase are present.

Fig. 10B SEM image of the flash calcined product shows that rutile formed very fast to well developed crystals of the right particle size.

Fig. 10C SEM image of flash calcined material-detail of rutile fused crystals and some traces of small anatase phase.

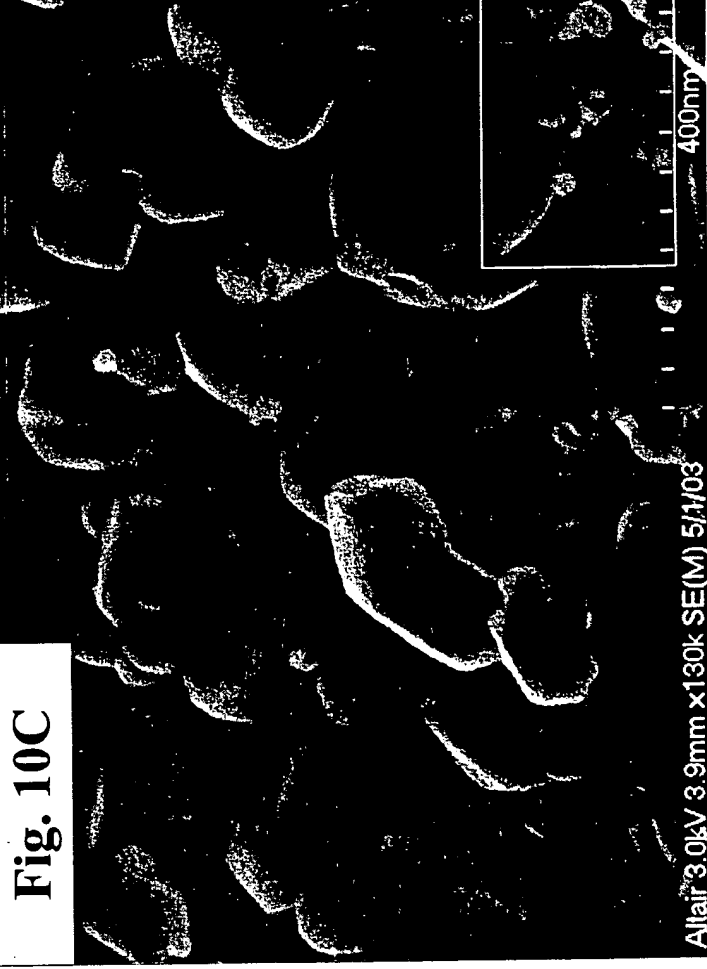
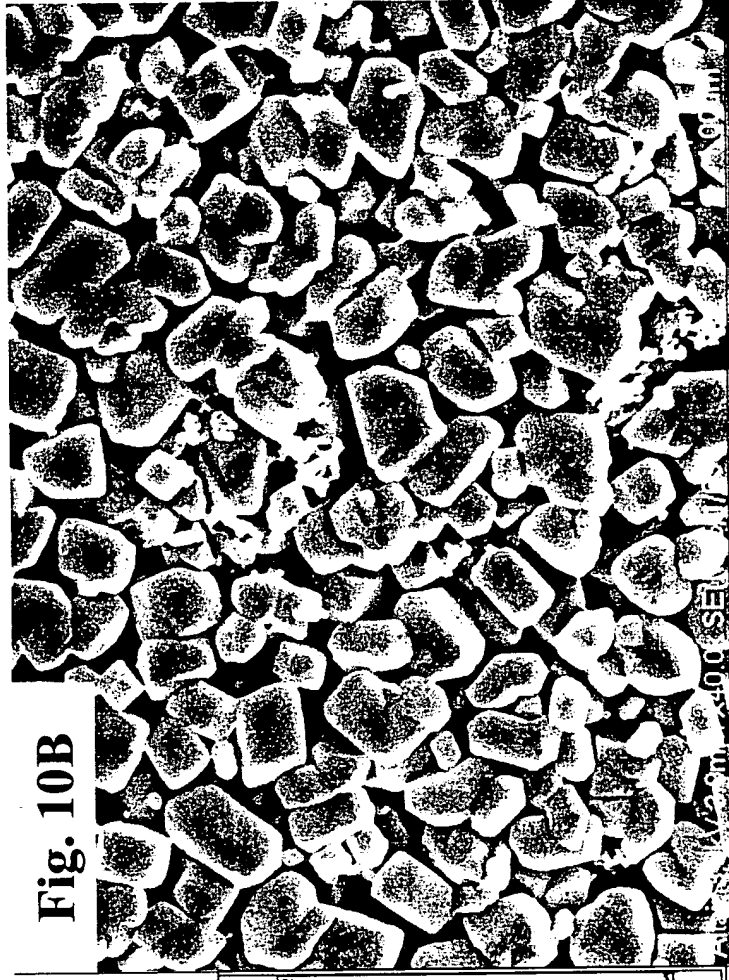


Fig. 11A

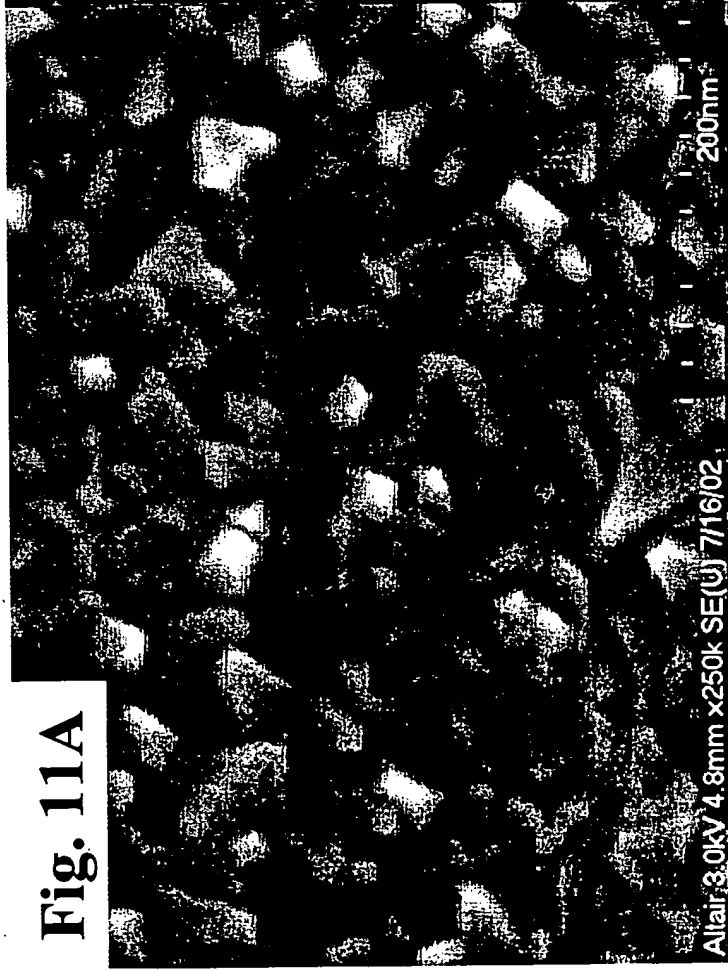


Fig. 11B

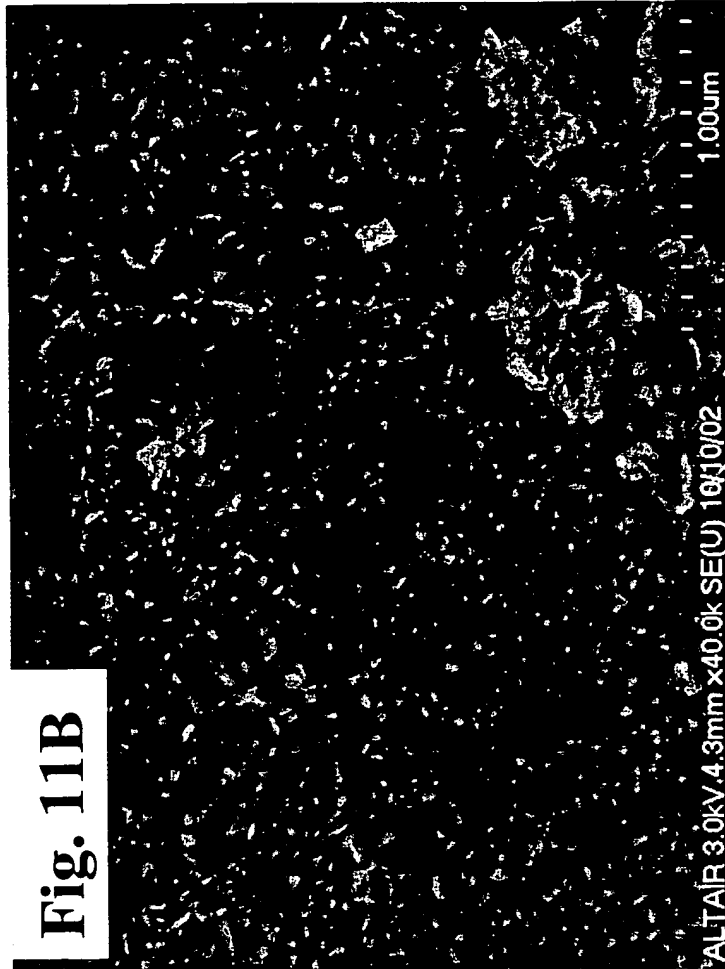


Fig. 11C



Fig. 11D



Fig. 12

**A detail of
interrupted
fusion**

Altair 3.0kV 5.8mm x110k SE(U) 4/17/03

500nm

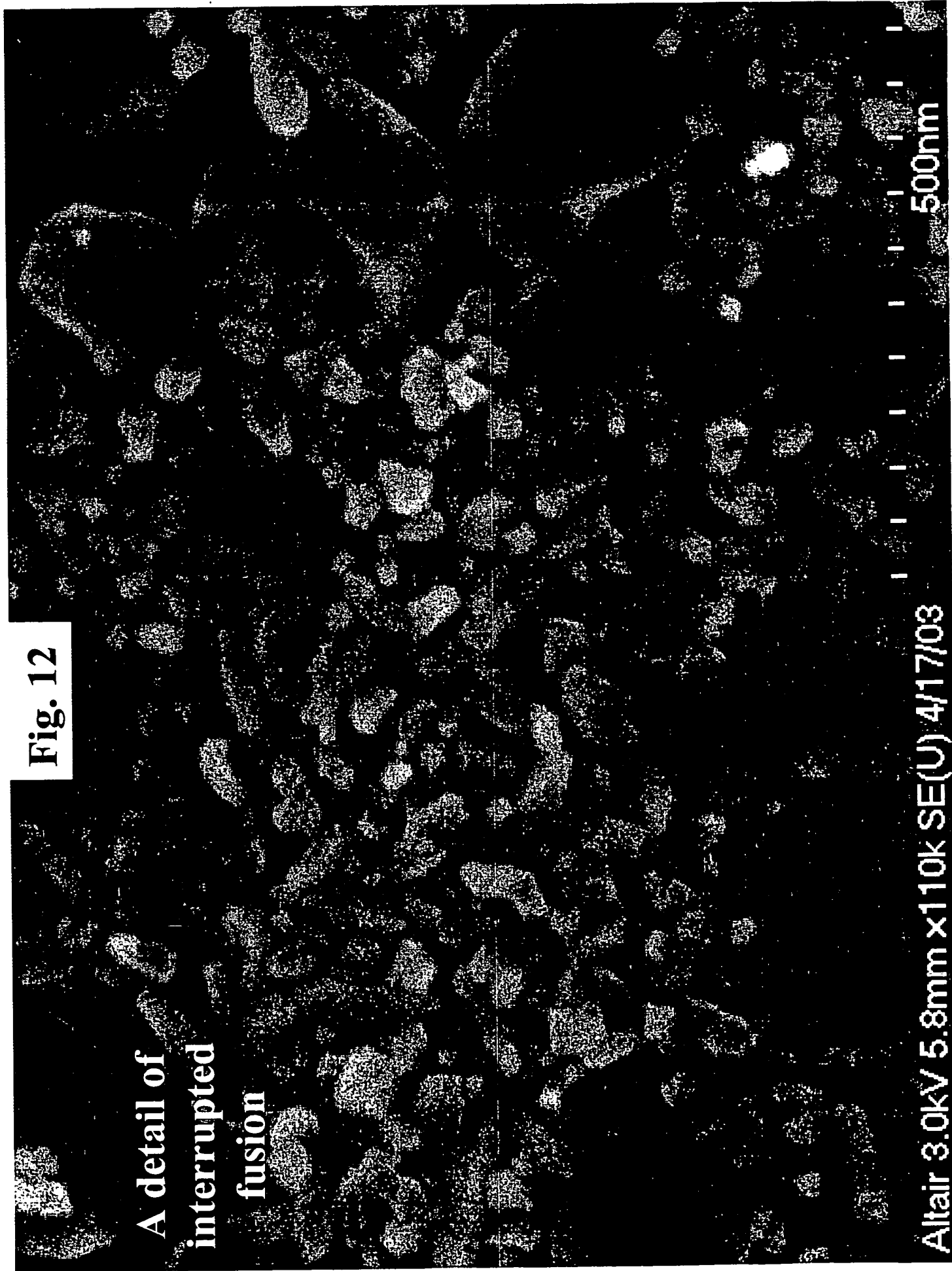


Fig. 13

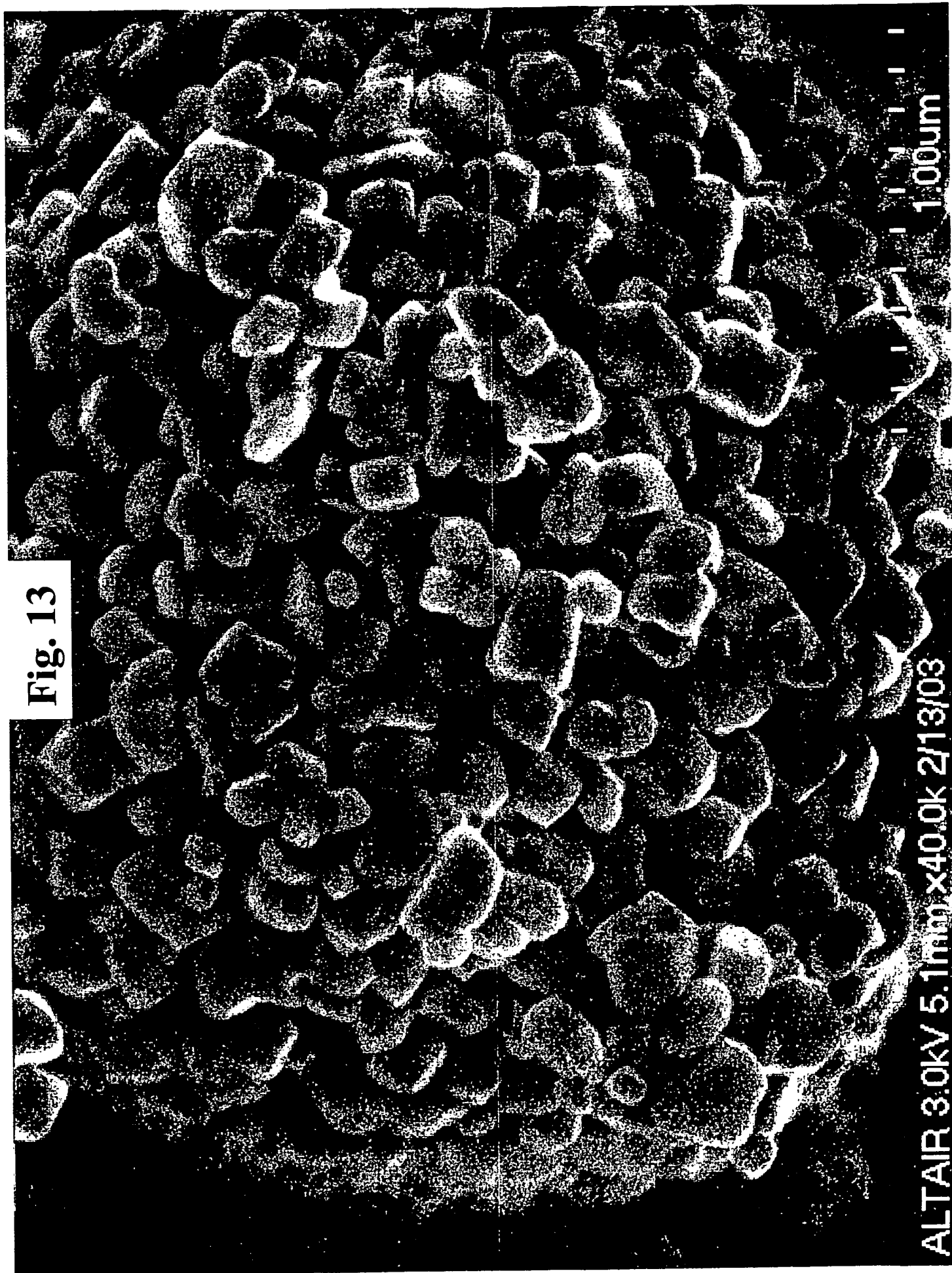


Fig. 14

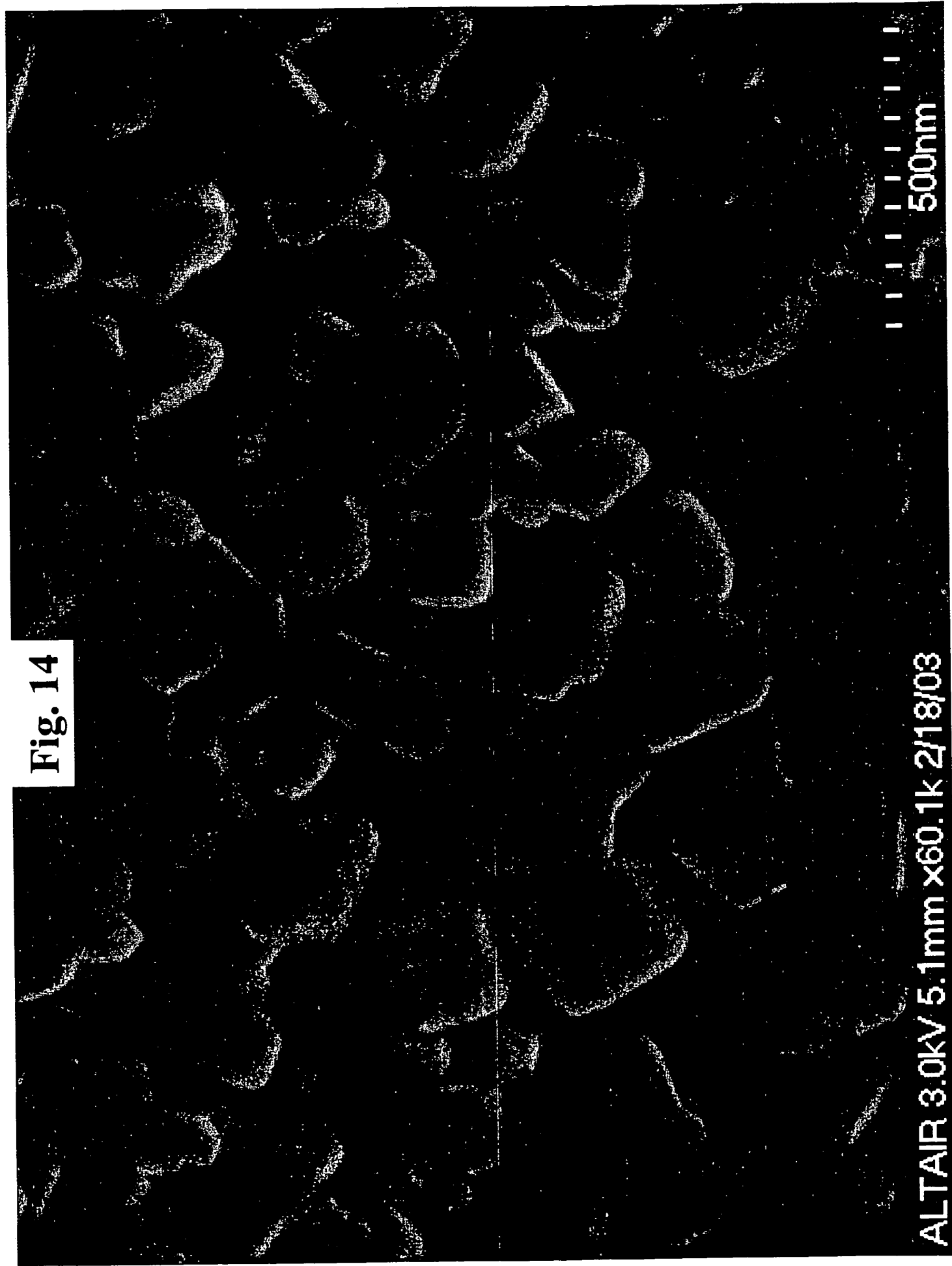


Fig. 15

**XRD scan of the washed pigment base, calcined at 550°C.
Card 21-1276 matches-phase pure rutile.**

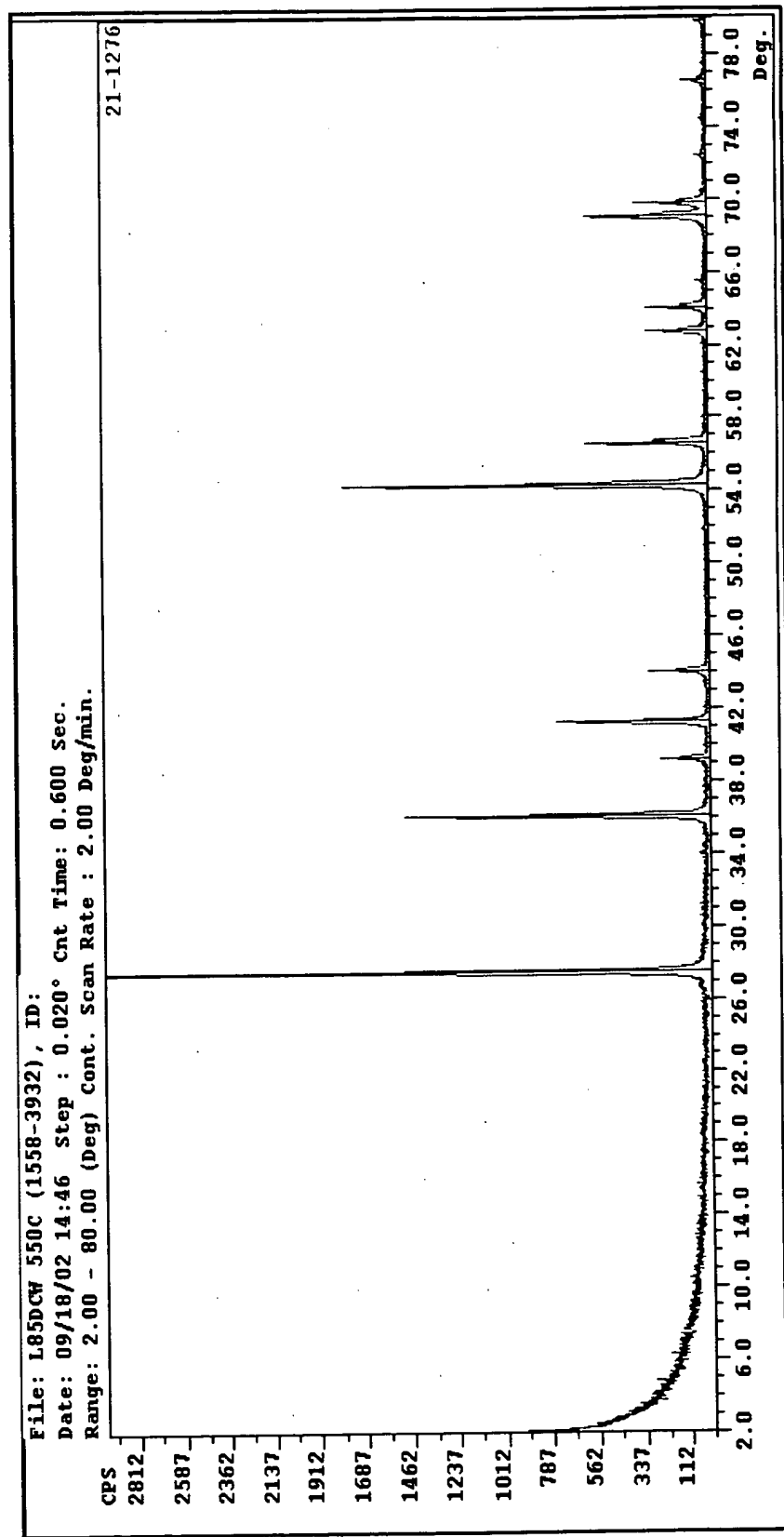


Fig. 16
L85DCW Milling Profile Monitored by the Coulter Particle
Size Analyzer LS230.

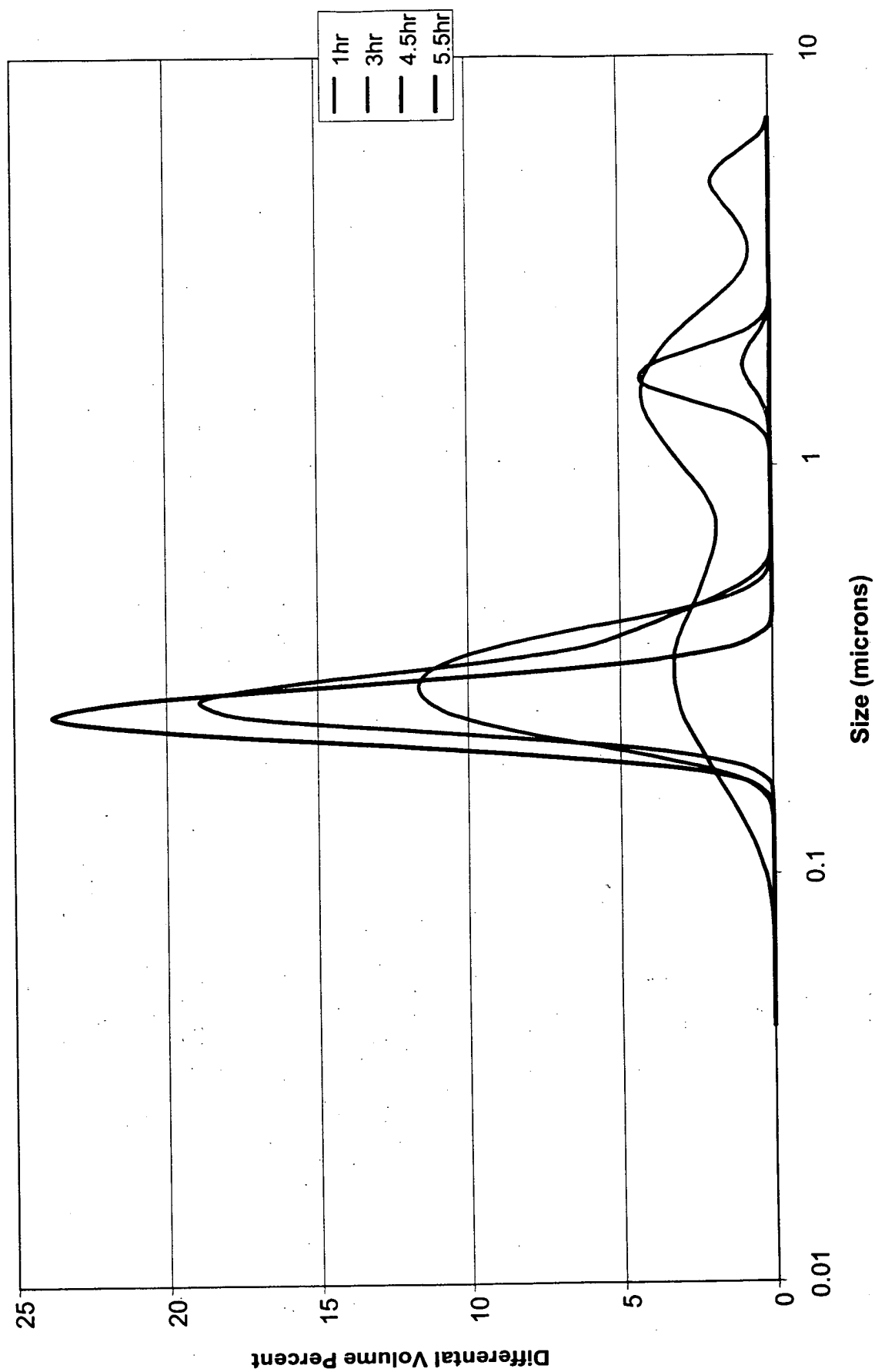


Fig. 17

4Cf

C02G3242 3.0kV 5.6mm x70.0k SE(U)

500nm

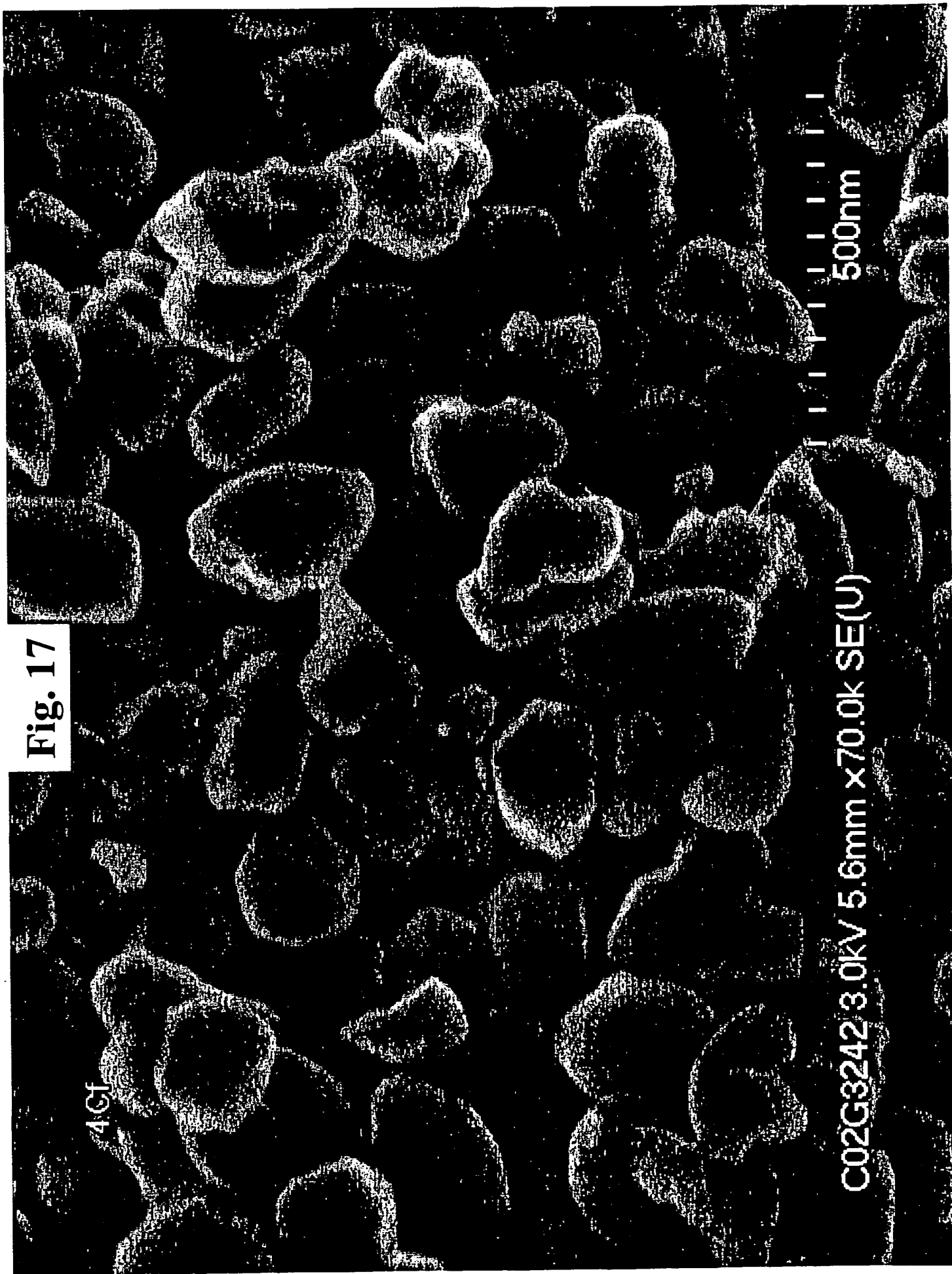
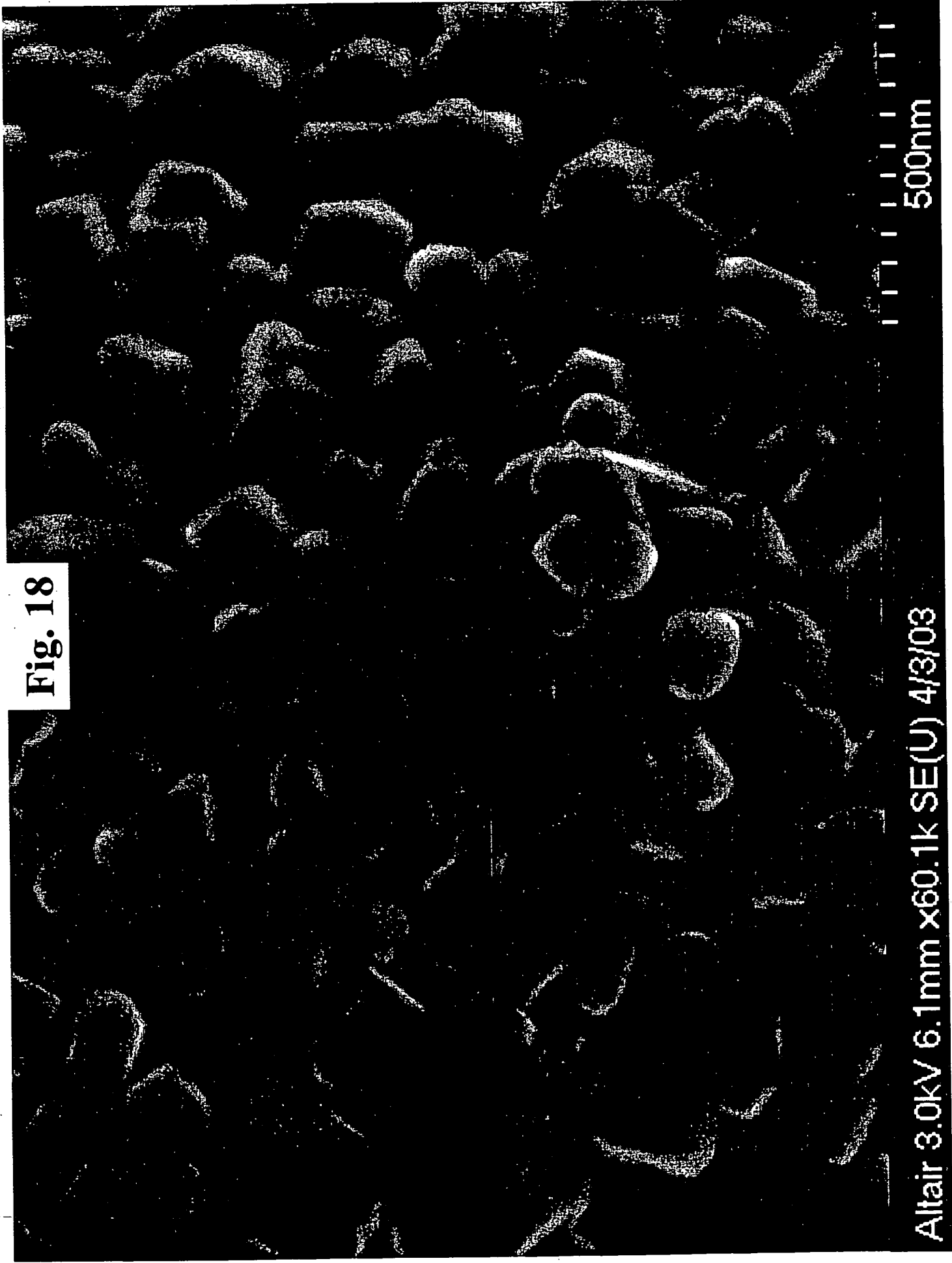
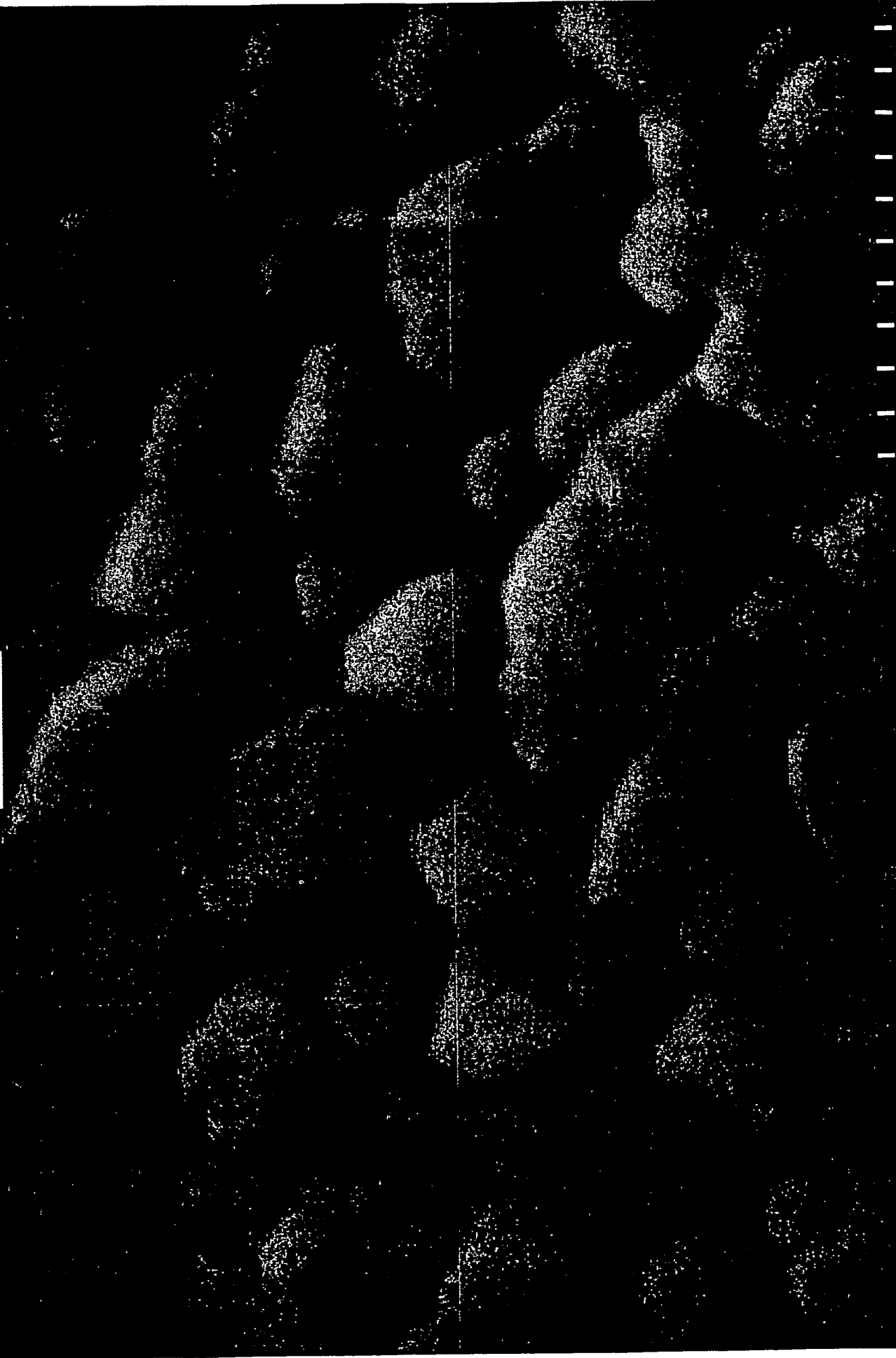


Fig. 18



Altair 3.0kV 6.1mm x60.1k SE(U) 4/3/03

Fig. 19



3.0kV 5.9mm x200k SE(M) 2/6/03

200nm